STATE OF MARYLAND

DHMH

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June 8, 2012

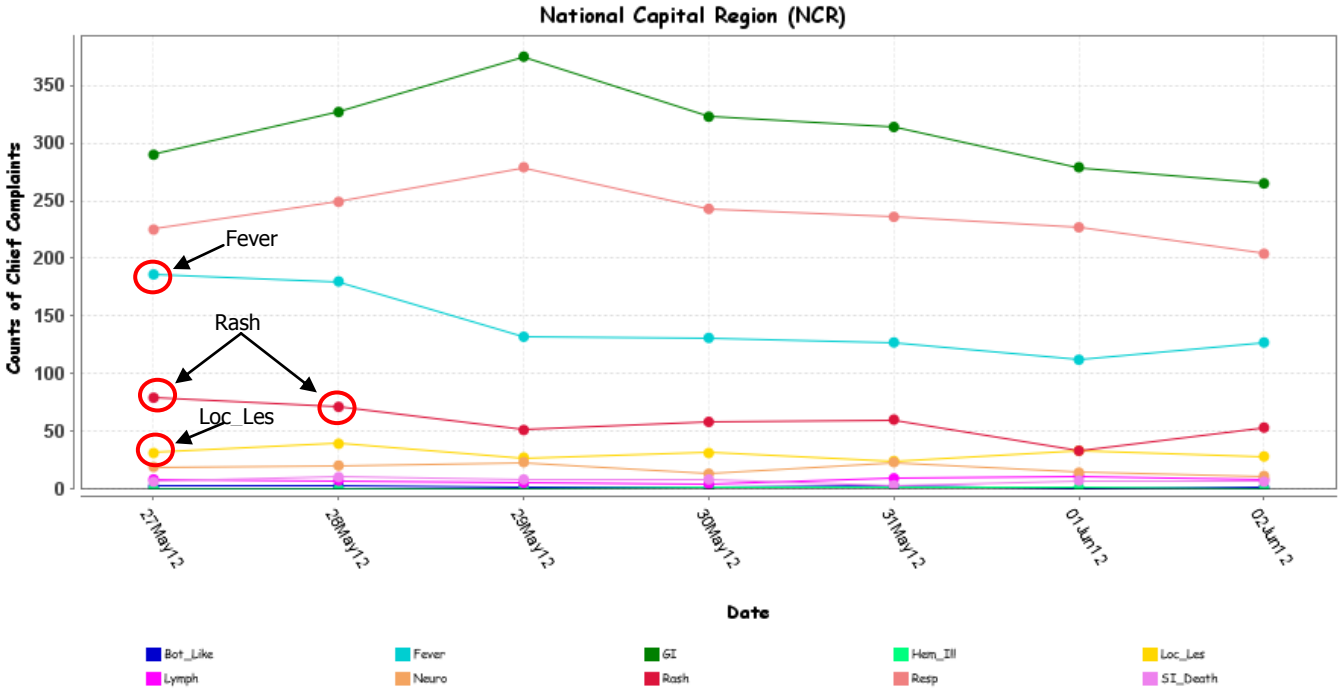
Public Health & Emergency Preparedness Bulletin: # 2012:22
Reporting for the week ending 06/2/12 (MMWR Week #22)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

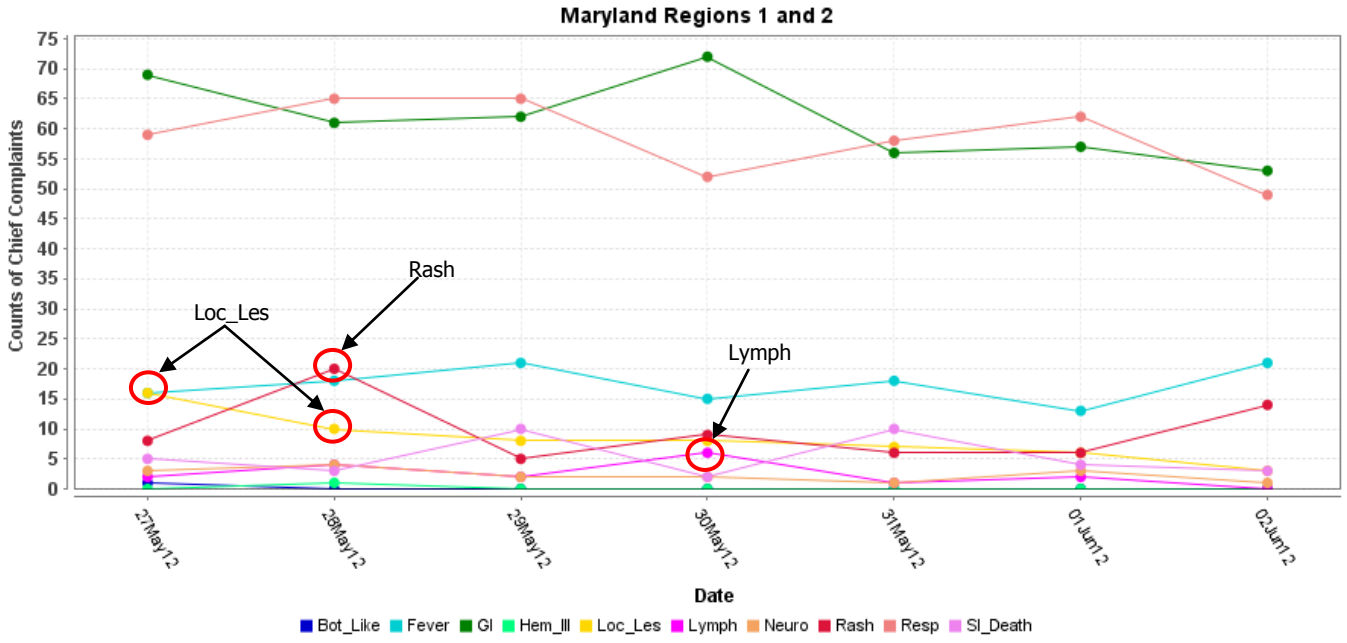
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

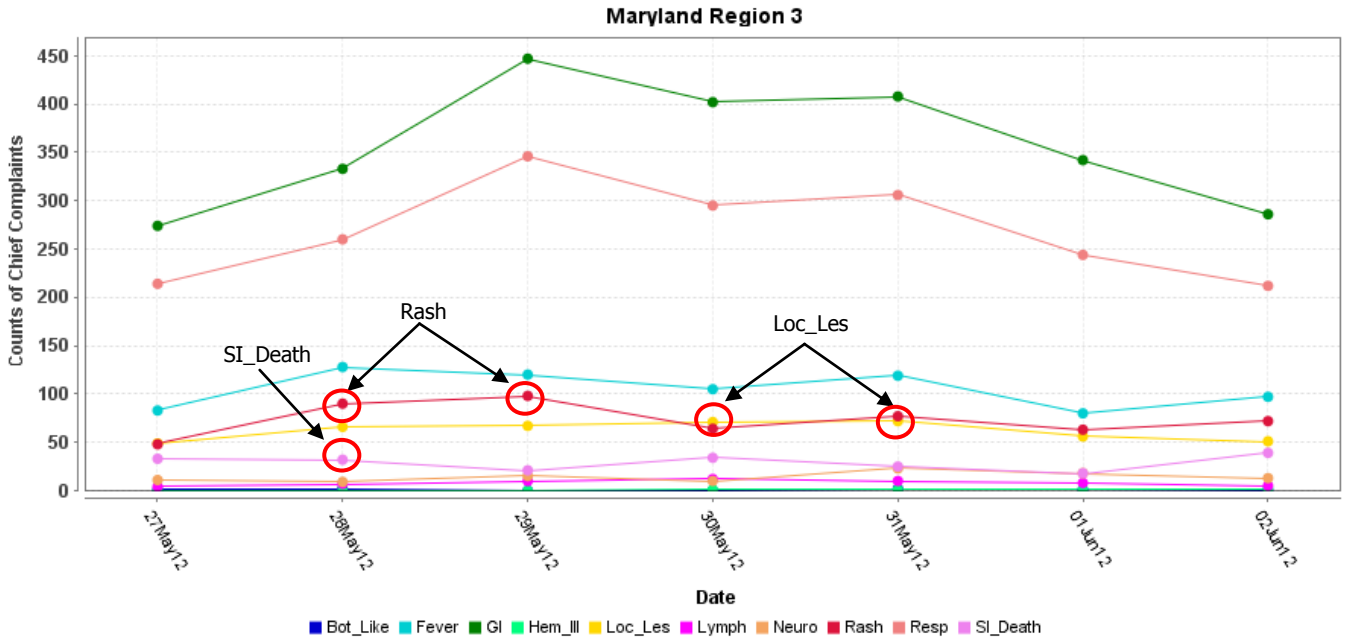


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

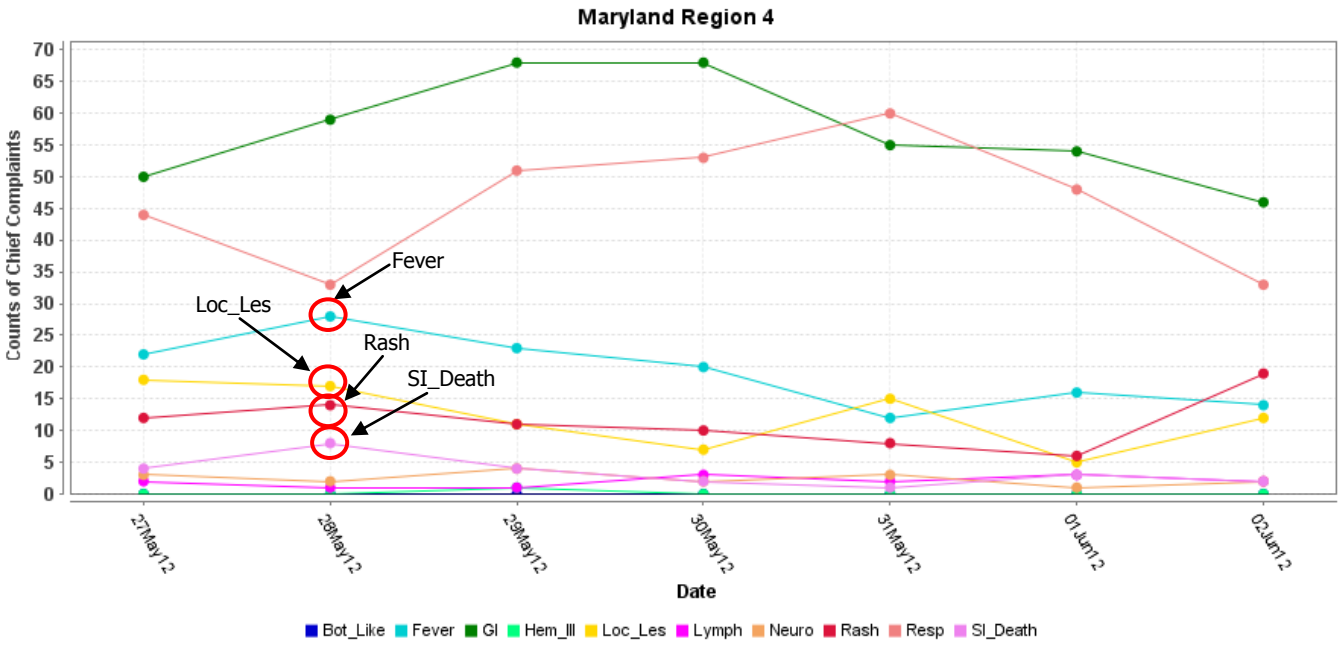
MARYLAND ESSENCE:



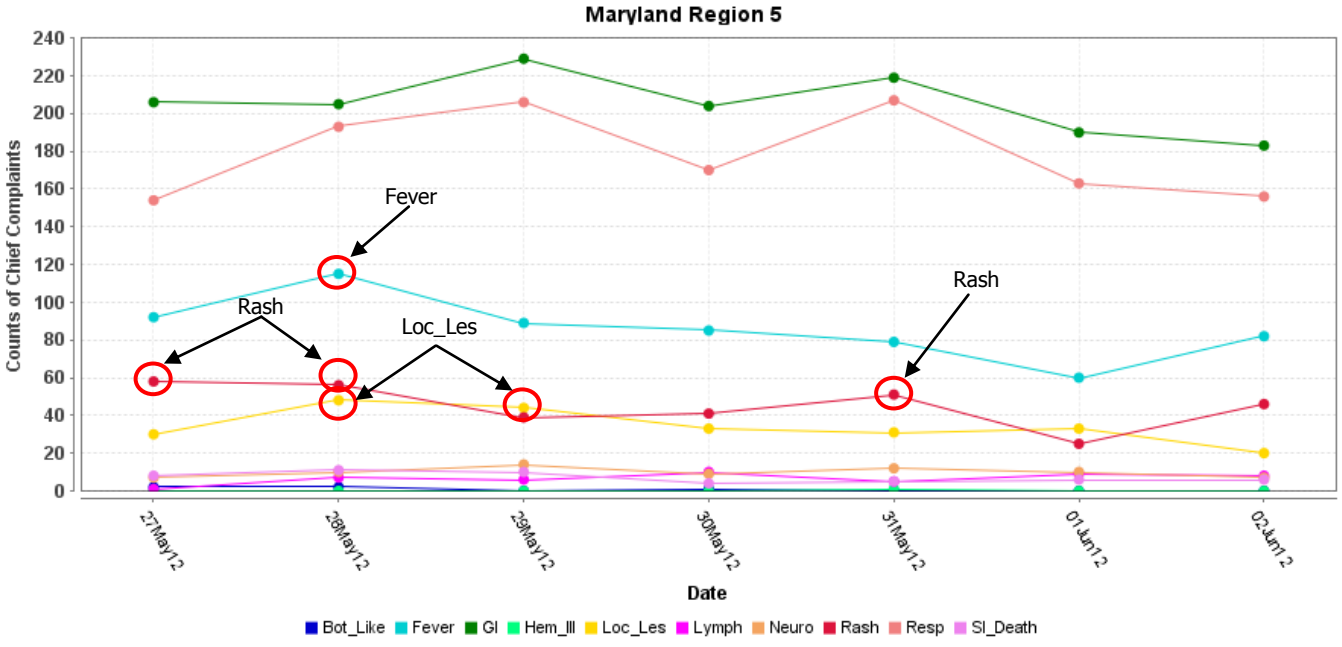
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



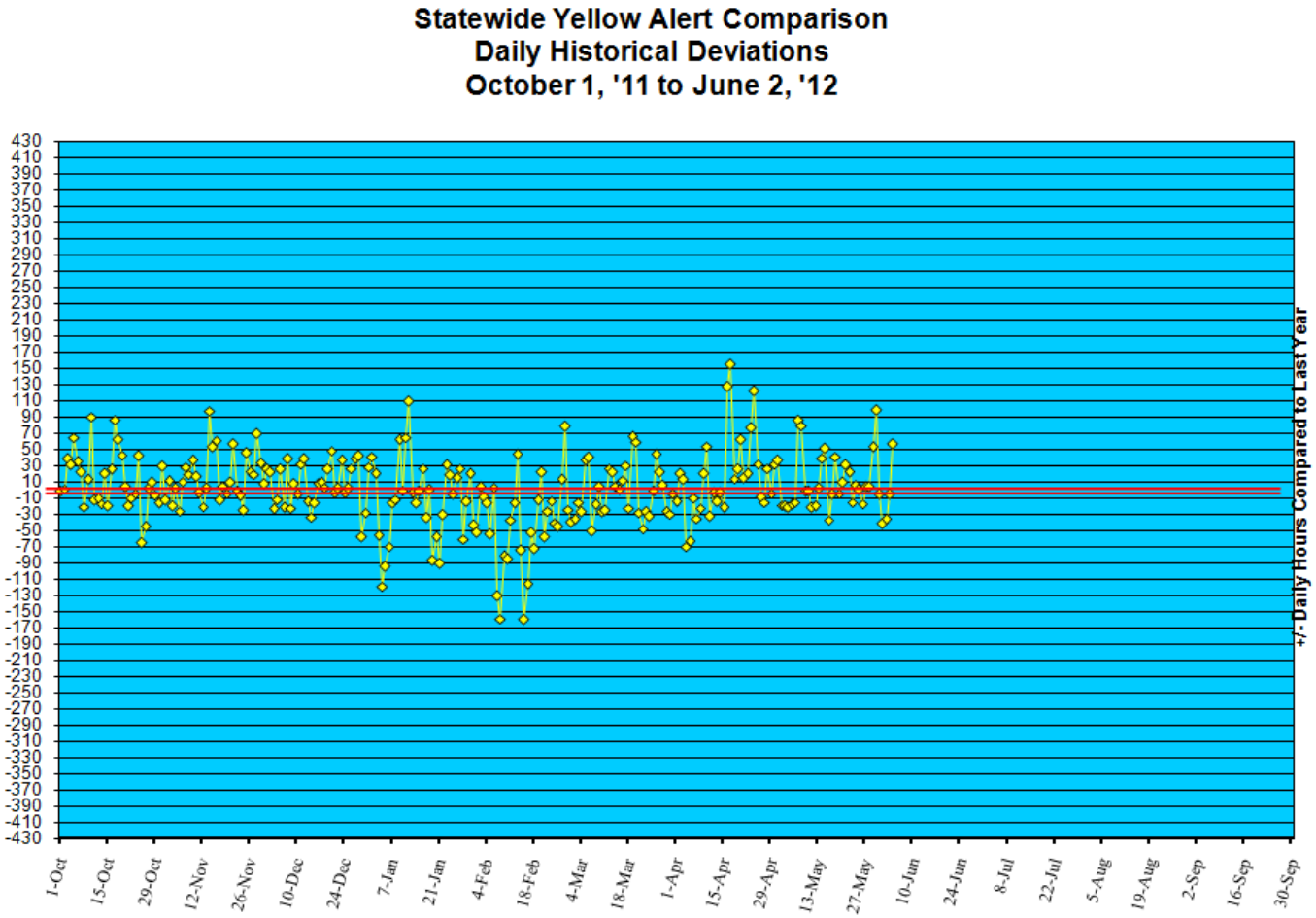
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (May 27 – June 2, 2012):	6	0
Prior week (May 20 – May 26, 2012):	8	0
Week#22, 2011 (May 28 – June 3, 2011):	8	0

6 outbreaks were reported to DHMH during MMWR Week 22 (May 27 – June 2, 2012)

2 Gastroenteritis outbreaks
1 outbreak of GASTROENTERITIS associated with a Daycare Center
1 outbreak of GASTROENTERITIS associated with a School

1 Foodborne outbreak
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Restaurant

1 Respiratory illness outbreak
1 outbreak of LEGIONELLOSIS associated with a Residential Building

2 Rash illness outbreaks
2 outbreaks of HAND, FOOT, AND MOUTH DISEASE associated with Daycare Centers

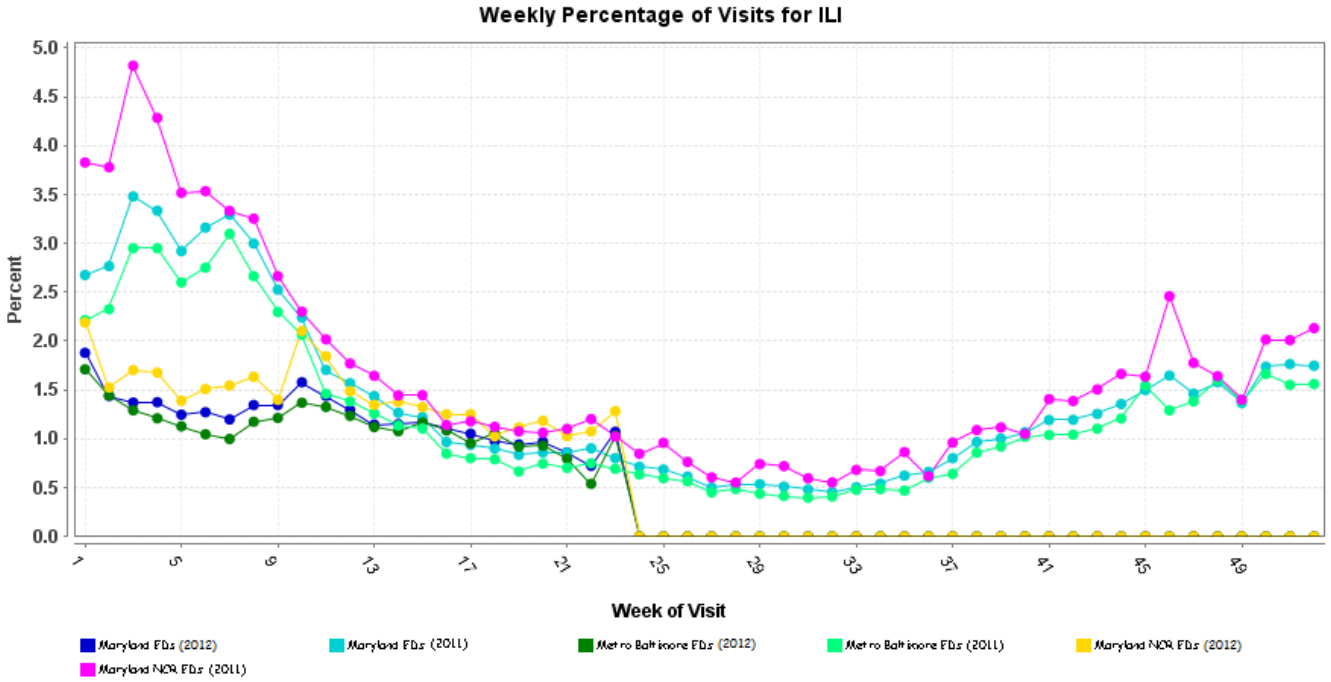
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May.

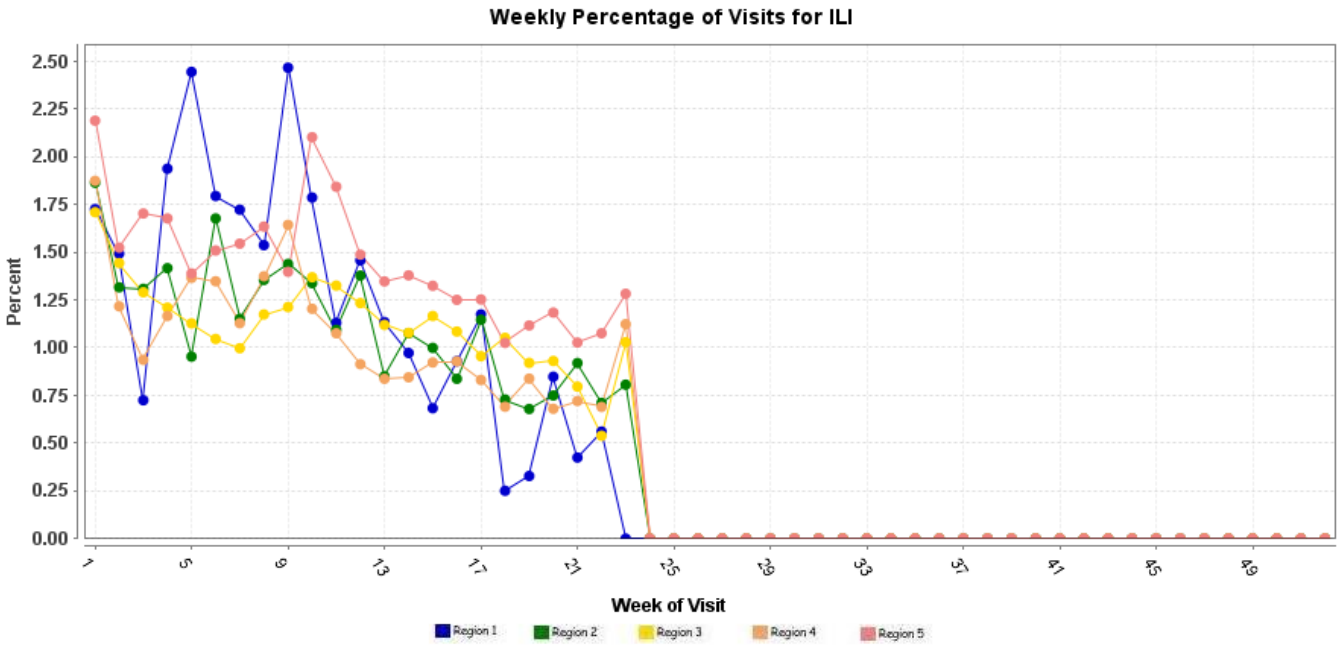
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



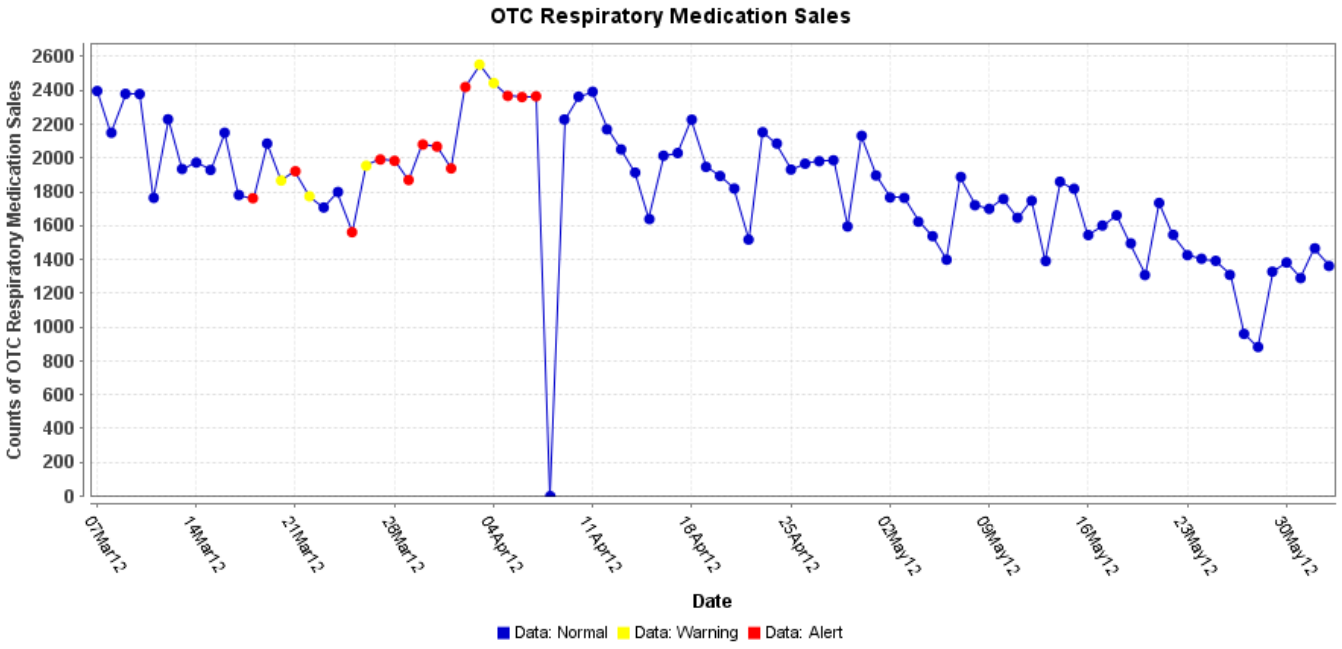
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of May 29, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 604, of which 357 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (CHINA): 2 June 2012, Laboratory results have confirmed that a 2-year-old boy from Guangzhou does have H5N1 Influenza A, the Centre for Health Protection said today [2 Jun 2012], adding his condition has changed from stable to serious. He is in intensive care at Princess Margaret Hospital and has developed obstructive hydrocephalus. His parents are in quarantine at the hospital and lab tests for the influenza were negative. In the private clinic the boy attended 2 healthcare workers and another patient who attended the same clinic also tested negative.

NATIONAL DISEASE REPORTS

PLAGUE (NEW MEXICO): 31 May 2012, A 78-year-old Torrance County, New Mexico man is the 1st human case of plague in New Mexico or the USA in 2012. Health officials report the yet unnamed man is currently hospitalized in stable condition. According to a New Mexico Department of Health press release Thursday (31 May 2012) they confirmed the man as having the plague, or *Yersinia pestis* [infection]. NM Department of Health Cabinet Secretary, Dr Catherine Torres said, "The Department of Health takes action when a plague case occurs to ensure the safety of the immediate family, neighbors, and health care providers. We inform neighbors door-to-door about plague found in the area and educate them on reducing their risk. We determine whether individuals close to the patient may also have been exposed to the plague and recommend preventative treatment when necessary." Plague is an infectious disease caused by the bacterium *Yersinia pestis*. It is found in animals throughout the world, most commonly rats but other rodents like ground squirrels, prairie dogs, chipmunks, rabbits, and voles. Fleas typically serve as the vector of plague. Human cases have been linked to the domestic cats and dogs that brought infected fleas into the house. Bubonic plague is the most common form of plague. In this form, the bacteria typically enter the body through the bite of an infected flea or rodent. Here the bacteria infect the lymphatic system. After a few days to a week, the person will experience fever, chills, weakness, and swollen lymph glands. These are called buboes. NM public health veterinarian, Dr Paul Ettestad says plague activity usually begins to increase in the spring and continues into the summer months. Now is the season and people need to take precautions to avoid rodents and their fleas which can expose them to plague. Ettestad says, "Pets that are allowed to roam and hunt can bring infected fleas from dead rodents back into the home, putting you and your children at risk." (Plague is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (USA): 30 May 2012, CDC is collaborating with public health and agriculture officials in many states and the USDA, Animal and Plant Health Inspection Service, National Poultry Improvement Plan (NPIP), and Veterinary Services to investigate an outbreak of human salmonellosis linked to chicks and ducklings from a single mail-order hatchery in Ohio. Public health investigators are using the PulseNet system to identify cases of illness that may be part of these outbreaks. In PulseNet, the national subtyping network of public health and food regulatory agency laboratories coordinated by CDC, DNA "fingerprints" of salmonellae are obtained through diagnostic testing with pulsed-field gel electrophoresis, or PFGE, to identify cases of illness that may be part of this outbreak. Contact with live poultry can be a source of human salmonellosis. You should always wash hands thoroughly with soap and water right after touching live poultry or anything in the area where they live and roam. Adults should supervise hand washing for young children. Additional recommendations are available. Mail-order hatcheries, agricultural feed stores, and others who sell or display chicks, ducklings, and other live poultry should provide health-related information to owners and potential purchasers of these birds prior to the point of purchase. This should include information about the risk of acquiring a Salmonella infection from contact with live poultry. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

CRYPTOSPORIDIOSIS (UNITED KINGDOM): 2 June 2012, Scientists are investigating a large outbreak of a virulent stomach bug [cryptosporidia] linked to contaminated water and food, it has emerged. There have been 267 cases of the bug since May 11 across four areas of England, more than double the normal rate. The parasite Cryptosporidium is normally associated with contained swimming pools, lakes and salad foods but no source has yet been identified in this outbreak. People in the North East, Yorkshire, West and East Midlands have been infected. Usually outbreaks remain isolated and the source of the infection is quickly identified. The Health Protection Agency has investigated the drinking water supply and it is thought this is an unlikely cause of the outbreak. The organism can live in soil, food, water and on surfaces contaminated by human or animal feces. The infection known as cryptosporidiosis causes diarrhea, stomach pains, dehydration, weight loss and fever which can least a month or more. Symptoms can be severe in the very young and the elderly, however most people affected in the outbreak so far are adults aged between 15 and 45. A 'handful' of people have been admitted to hospital and have now recovered, a spokesman for the HPA said. Dr Stephen Morton, who is leading the investigation for the HPA, said: "It is usual to see an increase in cryptosporidiosis cases in the early summer, but, the increase is higher than we might expect so we are working with NHS partners, local Environmental Health Officers the Drinking Water Inspectorate and the Food Standards Agency to see if there is a common source of infection. "GPs in affected areas have been informed about the recent rise in cases and asked to be vigilant to further possible cases. This is to ensure any further possible cases can be followed up as part of our investigations. "If our investigations identify a common source, we will issue further health advice to the public as necessary." The dry spell followed by heavy rain could have caused irrigation systems to become contaminated but there is no evidence of that yet in this outbreak, a spokesman said. Tap water was infected with cryptosporidium in 2008 in Northamptonshire when residents were told to boil their water. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

VIBRIO VULNIFICUS (CHINA): 30 May 2012, An 84-year-old woman who cut herself while descaling a fish has died from water-borne *Vibrio vulnificus* bacteria [infection], the Centre for Health Protection said last night [29 May 2012]. The Wan Chai resident, who had a chronic underlying medical condition, ran a fever last Wed 23 May 2012, and developed symptoms such as fever, vomiting, and lethargy. She was admitted to Ruttonjee Hospital the next day with lower limb bruising and upper limb swelling before succumbing on Sat 26 May 2012. The center said a specimen of her blood tested positive for *V. vulnificus* and that its investigators are trying to identify the kind of fish involved and where it was bought. According to Department of Health figures, there have been 54 such infections and 16 deaths since 2010, including 6 this year [2012]. *V. vulnificus* infection can lead to rapidly expanding cellulitis (skin infection) or septicemia (bacteria in the blood). It was first isolated in 1976. The infection can be brought on by eating seafood, especially raw or undercooked oysters. The bacterium may also enter the body through open wounds when swimming or wading in infected waters, or through puncture wounds from the spines of fish such as tilapia. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS (CANADA): 29 May 2012, Fiddleheads can prove a delightful addition to any locavore's [a person whose diet consists only or principally of locally grown or produced food] diet, if, that is, the curled ferns are cooked properly. 7 cases of illness associated with eating fiddleheads have been reported by residents to Toronto Public Health since the beginning of May 2012, spokeswoman Kris Scheuer said. One cluster involved a family of 4. Raw or undercooked fiddleheads have been known to sporadically cause unpleasant symptoms of food poisoning since 1994, according to Health Canada. The symptoms typically last for less than a day. Only a few people have been affected, but their temporary sickness serves as a reminder to the public to wash and cook the seasonal greens carefully and not to eat them raw, Scheuer said. "It's not that you'll always get ill, we just sent out the message to reduce the likelihood," she said. The growing season for the ostrich fern sprouts is short, lasting from about the end of April till mid-June. The ferns grow in Ontario, Quebec, and the Maritimes and are typically picked from the wild. It's not known why the spiralled veggies, nicknamed after their violin like appearance, can make people ill. Scientists haven't been able to trace any particular toxin to fiddleheads, according to Health Canada, so it's up to chefs to cook them properly. When done right, they're delicious, healthy, and popular among foodies. They taste similar to spinach or asparagus, and have twice as many antioxidants as blueberries, according to Agriculture and Agri-Food Canada research. Health Canada recommends washing fiddleheads several times in cold water and removing as much of the papery, brown husk as possible. Then, steam them for 10 to 12 minutes, or boil for 15. Get rid of the water afterward. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI EHEC (SCOTLAND): 28 May 2012, The number of confirmed cases of *E. coli [O157]* in an outbreak connected to an Aberdeenshire nursery has risen to 7. NHS Grampian said 3 adults and 4 children were now affected, and there were a further 4 suspected cases, who are all children. The outbreak centres on the Rose Lodge Nursery School in Aboyne, Aberdeenshire, where the 1st suspected case emerged last Sunday, 20 May 2012. NHS Grampian's health protection team is investigating the source of the outbreak. Staff and parents and carers of all children who attend the nursery have been contacted. The health board is advising parents to contact their GP or NHS24 if they are concerned about the health of their children, as well as to maintain a good standard of hand hygiene. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable